



Environmental Quality Department

Pollution Prevention Afloat and Ashore

A Means to Compliance

M.J. Bieberich

NSWCCD 632



Environmental Quality Department

RDT&E Goals:

Achieve Compliance with Environmental Regulations

Lower Operational and Environmental Life Cycle Costs

Decrease Maintenance Labor Hours

Prevent New Sources of HM

Ensure Operational Readiness

Reduce Ship Workcenter Exposures to HM



Environmental Quality Department

Drivers:

Pollution Prevention Act of 1990

- Established P2 as a “National Objective”

Executive Order (12856) 13148

- Raised P2 to a Level 1 requirement for DOD

Resource Conservation and Recovery Act (RCRA)

- Requires proper handling/disposal of Hazardous Waste

Clean Air Act Amendment of 1990

- Bans production/importation of ozone depleting substances in US

Clean Water Act

- Prohibits pollutant discharges into US waters



Environmental Quality Department

Guiding Principles:

- Process... Pollution Prevention
- Philosophy... Partnership
- Payoff... Environmental Life Cycle Costs
 & Workload Reductions



Environmental Quality Department

Pollution Prevention...

- Practices that *reduce* or *eliminate* hazardous material pollutants *at the source*
 - Equipment
 - Maintenance process improvements
 - Reformulation or redesign of products
 - Substitution of new materials
 - Better management practices
 - Inventory Control



Environmental Quality Department

Partnerships...

- Sharing Visions, Objectives and Strategies
 - Fleet
 - Navy Shore Facilities and Homeports
 - Navy Echelon II Commands
 - Army, Air Force, USCG, MSC
 - BUMED/Navy Environmental Health Center
 - Industry
 - Universities



Environmental Quality Department

Payoff...

Reductions in...

- **Hazardous material life-cycle costs**
 - Consumables, usage/handling, disposal
- **Sailor workload**
- **Exposure to hazardous substances**

Improvements in Quality of Life and Service